

Lexington Battle Green Streetscape Improvements

Public Meeting
February 01, 2022

Video Conferencing



Image Source: Nearmap, March 2020

Project History

- October 2015 Preliminary Evaluation
- June 2016 to November 2016 Traffic Trials Period
- 2021 Roundabout Concept Evaluation Based on New Design Guidelines

Project Limits

- **Four Key Roadways**
- Massachusetts Ave
- Bedford St (Rte 4/225)
- Harrington Rd
- Hancock St
- Meet Center Streetscape Project at Meriam Street



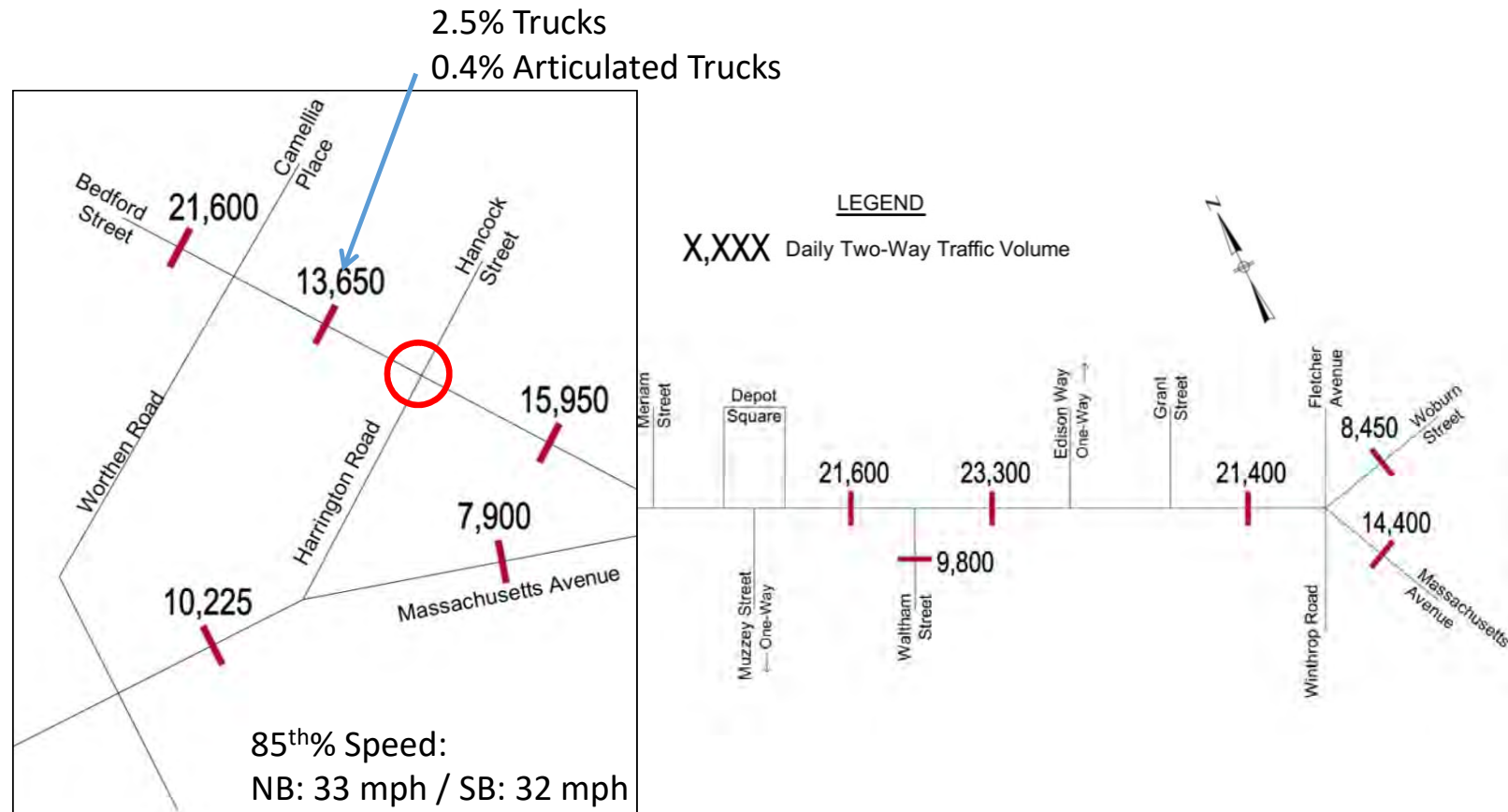
**PROJECT
LIMIT**

Project Goals

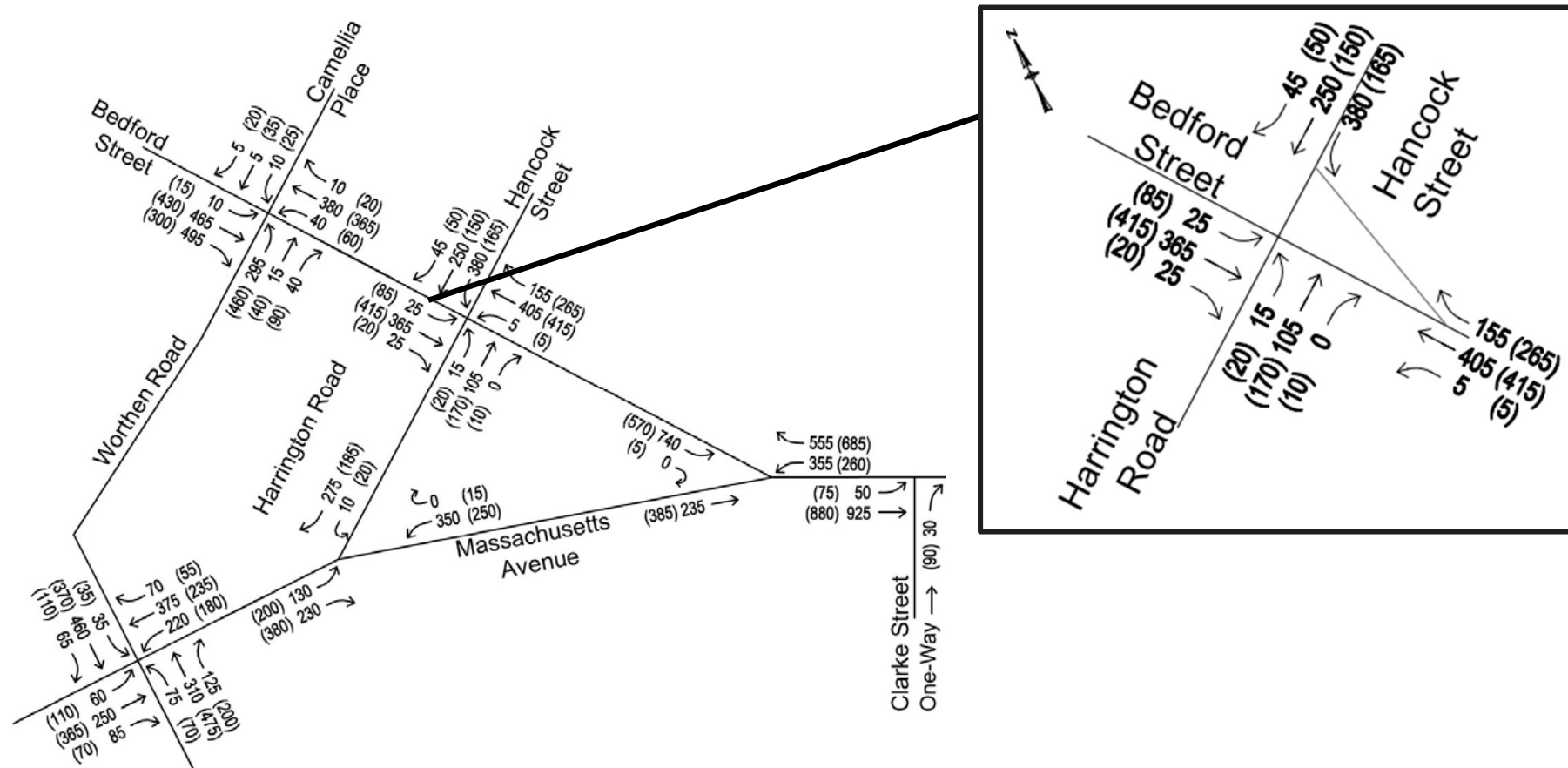
- Pedestrian and Bicycle Safety
- Vehicular Safety
- Improved Connectivity and Accessibility



Average Daily Traffic Volumes

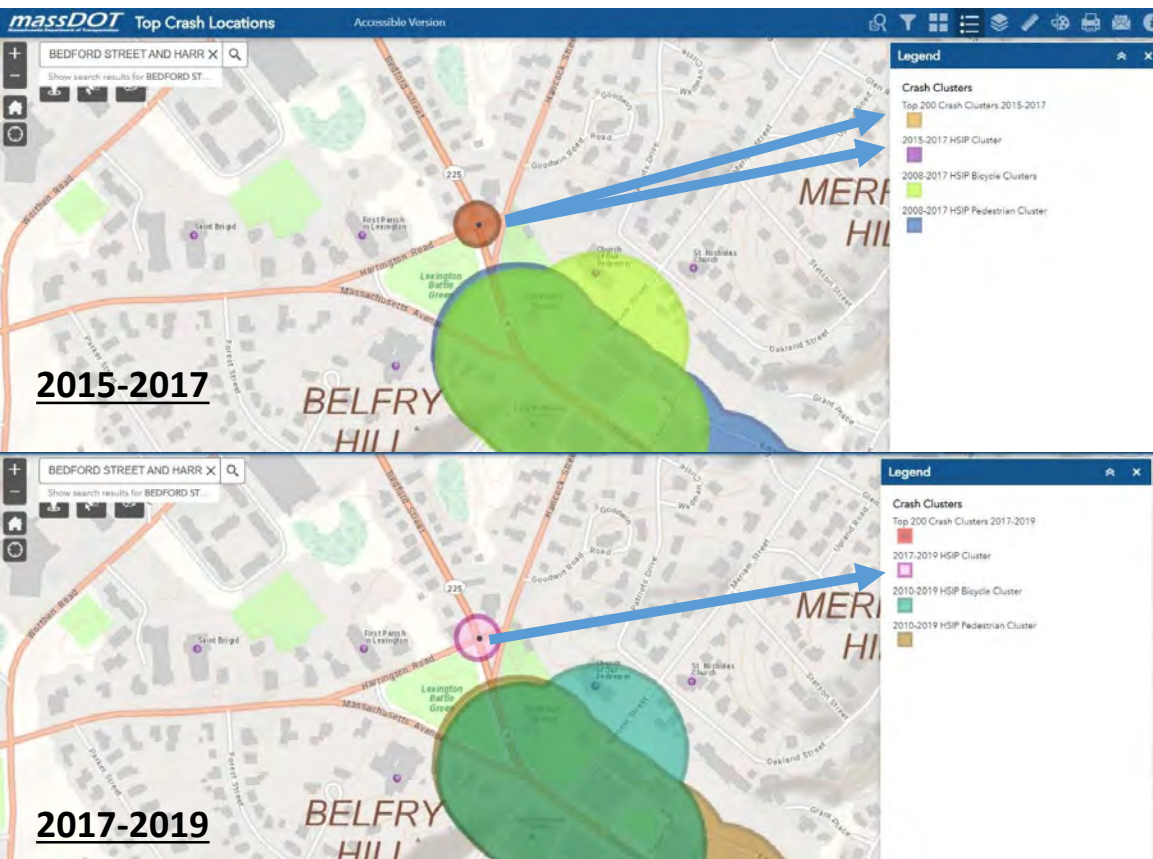


AM and PM Turning Movement Volumes

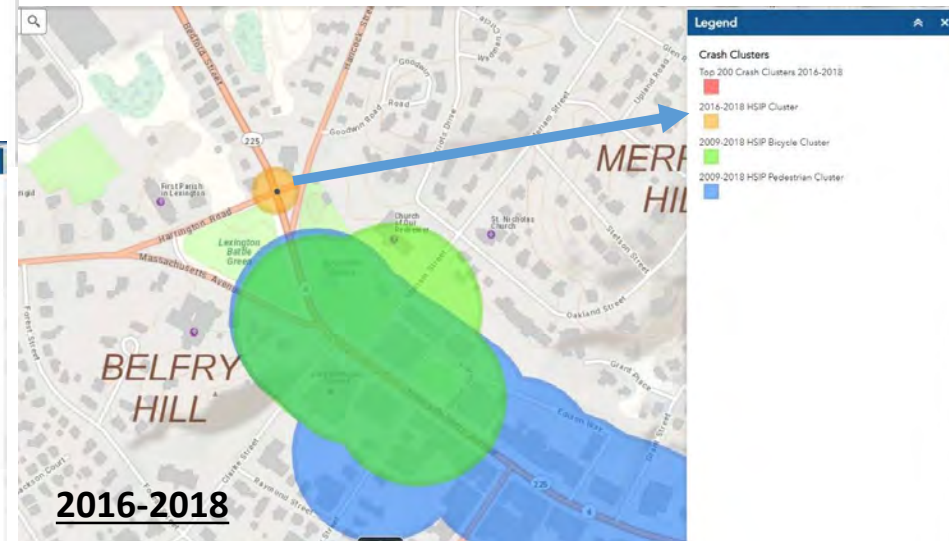


Intersection Crash History – Crash Clusters

Highway Safety Improvement Program (HSIP)

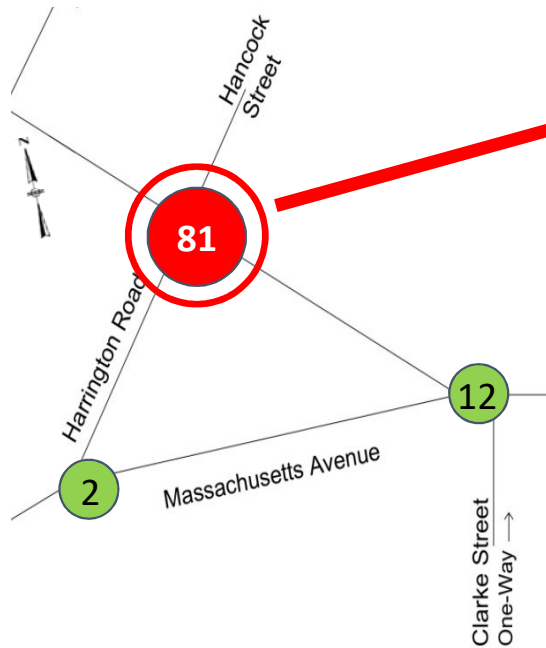


Top 200 Crash Cluster – 2015-2017
2015-2017 HSIP
2016-2018 HSIP
2017-2019 HSIP
Area Bicycle and Pedestrian Clusters

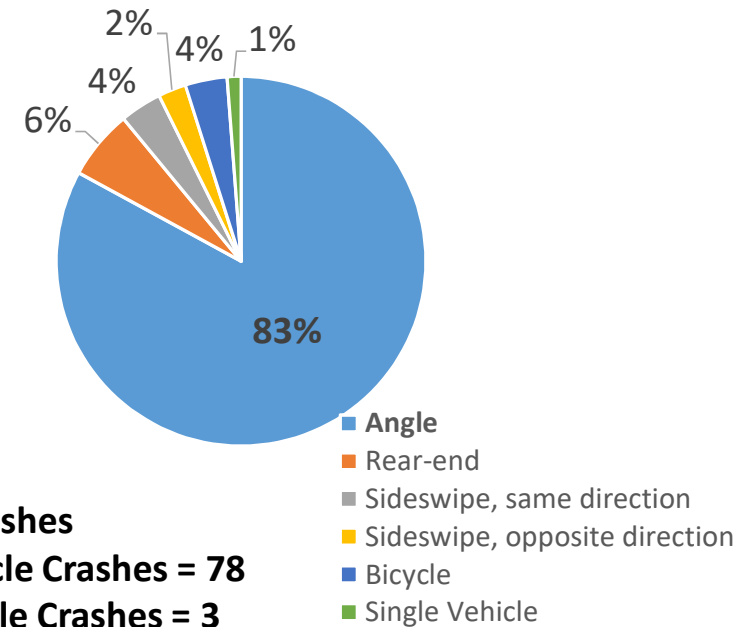
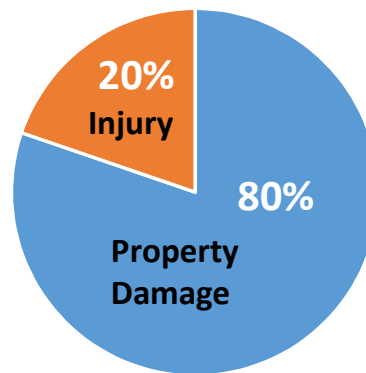


Lexington Battle Green Improvements

Intersection Crash History (2015-2019)



Bedford Street at Hancock Street and Harrington Road



2020-2021 Data*

Total = 11 Crashes

Bicycle Crashes = 1

Angle = 9 Rear-End = 1

** 2020 and 2021 are not "official." Shown for reference.*

Total = 81 Crashes

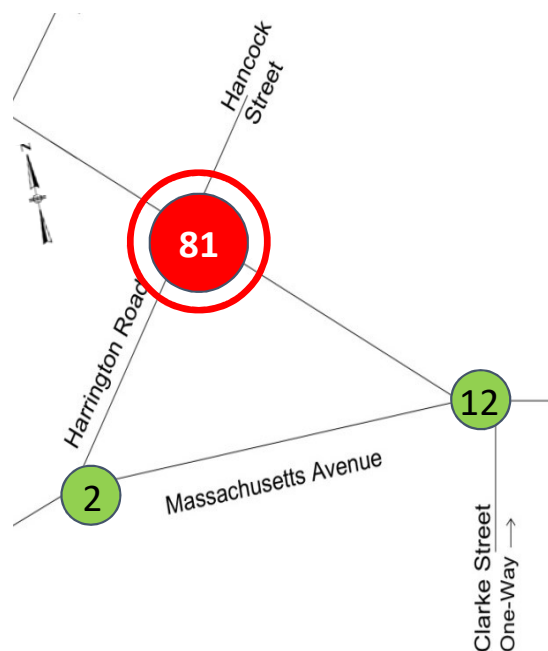
Vehicle/Vehicle Crashes = 78

Vehicle/Bicycle Crashes = 3

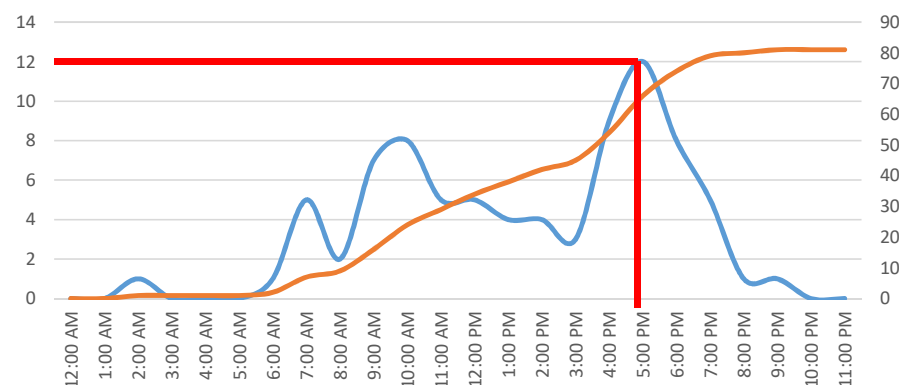
Vehicle/Pedestrian Crashes = 0

Intersection Crash History (2015-2019)

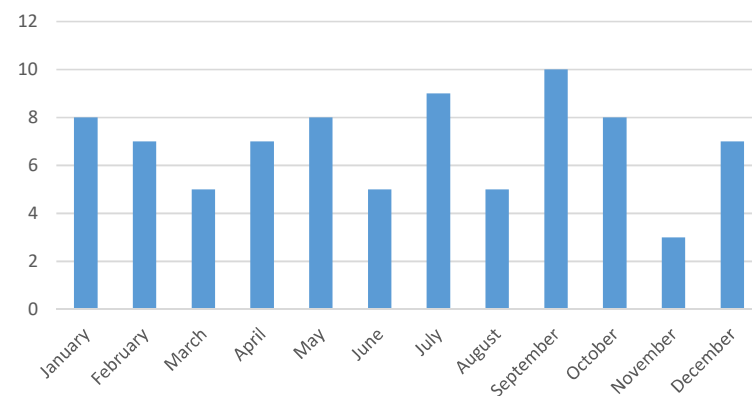
Bedford Street at Hancock Street and Harrington Road



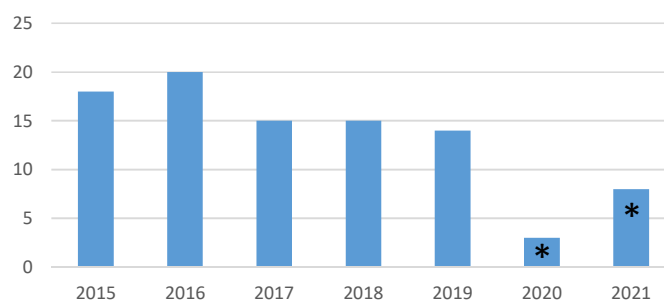
Crash Hour (2015-2019)



Crash Month (2015-2019)



Crash Year *



* 2020 and 2021 are not "official." Shown for reference.

Battle Green Concept Improvements



Massachusetts Avenue at Bedford Street Concept



Massachusetts Avenue at Harrington Road Concept



Intersection Layout

- Triangular Intersection
- Right-Turn/Left Turn Bypass
- Two-Way Traffic
- Crosswalks



Bedford Street at Harrington Road & Hancock Street

Preliminary Design Option Evaluation

1. Remove the Bedford Street right-turn slip lane
2. Signalize Option 1
3. Convert Bedford Street right-turn slip lane to one-way northbound (departing Bedford Street)
4. Signalize Option 3
5. Harrington Road as one-way southbound (departing Bedford Street) & remove Bedford Street right-turn slip lane
6. Harrington Road as one-way northbound (approaching Bedford Street) & two-way STOP control
7. Harrington Road as one-way away southbound (departing Bedford Street) & retain the Bedford Street right-turn slip lane
8. Harrington Road one-way southbound (departing Bedford Street) & convert the Bedford Street right-turn slip lane one-way away northbound (departing Bedford Street)
9. Counterclockwise one-way circulation around Battle Green
- 10. Roundabout**

Preferred Conceptual Roundabout



Rotary vs Roundabout

- Rotary - *Interchange*
 - Larger Diameter
 - Higher Speed (40 mph)
- Roundabouts - *Intersection*
 - Smaller Diameter
 - Slower Speed (20 mph)

Improved Safety

- Reduce Conflict Points
 - ± 50 to ± 8
- Deflection
 - Large Vehicle Turns
 - Slow Speeds – 20 mph
- Pedestrian Crossing Paths

Traffic Control

- YIELD for all legs
 - Gaps and Risk

Thank You

Feedback email:

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Subject: Battle Green



Image Source: Nearmap, March 2020